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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,315	07/14/2003	Moshe Rosenberg	309J-000310US	7949

22798 7590 03/13/2009

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EXAMINER	
MERCIER, MELISSA S	

ART UNIT	PAPER NUMBER
1615	

MAIL DATE	DELIVERY MODE
03/13/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/620,315	ROSENBERG ET AL.	
	Examiner	Art Unit	
	MELISSA S. MERCIER	1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 November 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15,20-23,25 and 26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15, 20-23, 25-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Summary

Receipt of Applicants Remarks and Amended Claims filed on November 24, 2008 is acknowledged. Claims 1-15, 20-23, and 25-26 remain pending in this application.

Withdrawn Rejections

Claim Rejections - 35 USC § 103

The rejection of claims 1-2, 4-8, 14-15, 20-23, and 25 under 35 U.S.C. 102(b) as being anticipated by Krochta et al. (US Patent 5,543,164) have been withdrawn. Applicant's arguments have been fully considered and are persuasive. The Examiner conceded that Krochta does not disclose a gel.

Maintained Rejections

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-4 8, 13-14, 21-23, and 25-26 are rejected under 35 U.S.C. 102(b) as being anticipated by A Hard Boiled Egg as evidenced by Structure of an Egg (Incubation and Embryology-University of Illinois), and further evidenced by Denaturation (Wikipedia).

The instant claims are drawn to a gel formed of oil in water emulsion. The claims recite the protein is "cross linked". Divalent linkers, formaldehyde, gluteraldehyde, and other aldehydes have been excluded as cross linking agents. The gelled emulsion further comprises supplemental constituents, including vitamins, nutrients, proteins, amino acids, polyunsaturated lipids, minerals, bioactive materials, and pharmaceuticals.

It is submitted that a hard boiled egg would meet the limitations of the instant claims. An egg comprises 74% water, 13% protein, and 11% fat. The egg white, which would constitute the continuous phase, comprises 88% water with 11% protein contained within. The yolk would constitute the lipid phase. Eggs are known to include numerous vitamins, including vitamins A, D, E, B12, and B6, as well as folate, thiamine, riboflavin, phosphorous, zinc, iron, choline, lutein and zeaxanthin. The vitamins would constitute the supplemental constituents as claimed in the instant claims. According to the article, protein is found in both the continuous and lipid phase. When an egg is boiled, the proteins denature and form hydrophobic bonds resulting in a solid mass, as evidenced by the protein denaturation article included in this action entitled Denaturation.

Regarding claims 13-14, egg yolks are well known emulsifying agents and the egg components themselves are a hydrocolloid.

Regarding claim 26, while an egg is low in calcium, calcium is still present thereby meeting the limitation of the claim.

Response to Arguments

Applicant's arguments have been fully considered but they are not persuasive. Foremost, Applicant argues the Denaturation article should be disregarded since it was obtained from Wikipedia. Applicant is reminded that the articles were used for evidentiary purposes only to clarify inherent features of a hard boiled egg. Applicant further argues the yolk does not comprise a plurality of droplets or particles. The examiner disagrees. It is unclear is Applicant is asserting the entire yolk is one lipid molecule. Clarification is requested. Since a hard boil egg meets the structural limitations of the instant claims, it is the position of the examiner; absent a showing of evidence to the contrary that it would not provide the same functional properties. Furthermore, the recitation of whereby supplemental constituents or lipid droplets, suitable for ruminant ingestion, are protected against degradation, modification, or removal from the gel during passage through a rumen do not provide any further structural limitations to the claims other than those already recited in a-c.

Newly Applied Objections/Rejections

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-8, 11-15, 20-23, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman (US Patent 4,808,429).

Freeman discloses encapsulated lipid material useful as an animal feedstuff ingredient prepared by homogenizing natural slaughterhouse blood, with lipid material in the molten state containing by weight more than 20% free fatty acids, allowing the resultant dispersion or emulsion to set to a firm gel (abstract). The gel is formed by heat denaturation of the protective proteinaceous matrix (column 1, lines 28-30).

Regarding claims 2-3, the encapsulated lipid material can be used as a carrier for lipid soluble feed additives, such as vitamins A, D, and E, as well as antibiotics (column 3, lines 12-15).

Regarding claims 4, Freeman discloses the encapsulated lipid material can be used as a nutrient material in its own right, or can be blended with other nutrient materials to provide a compound animal feedstuff (column 3, lines 18-21). Therefore since the droplets are in the continuous phase, the limitations of the claims are met.

Regarding claims 5-7, the emulsion contains fat droplets in the range of 10-15 microns (Example 1). It is the position of the Examiner that since the same lipid droplet range size is discloses the specific surface area would necessarily also be present since surface area is a property for the droplet size.

Regarding claims 8, 11-12, fish oil is disclosed as a suitable lipid, as well as tallow, soya oil, corn oil, and palm oil (column 2, lines 58-61; column 3, lines 1-2). Fish oil is known to contain DHA as recited in the instant claims.

Regarding claim 15, suitable proteins include wheat proteins, soya proteins, casein and fish proteins (column 2, lines 13-16).

Regarding claims 22- 23, the functional protein content of the aqueous suspension is at least 10% expressed on a dry weight basis (column 2, lines 19-21).

Regarding claim 25, the final emulsion comprises 65% water (example 1).

While Freeman does not disclose the pH of the gel formed, he does teach preparing a gel utilizing the same components in the same manner as the instant claims; therefore, it is the position of the examiner that the pH would also be within the same range as the instant claims. Since Freeman discloses the same composition, it is the position of the examiner that absent a showing to the contrary, the feed supplement of Freeman would possess the same functional limitations as the feed supplement of the instant claims.

Regarding claims 20-21, the preparation of the dispersion or emulsion can be achieved by homogenizing the protein suspension and the lipid material together. The typical homogenization time during large scale manufacture is about 30 minutes. The gel formation takes place in the range of 40-50C but can occur below 40C (column 2, lines 36-48).

While Freeman does not disclose the pH of the gel formed, he does teach preparing a gel utilizing the same components in the same manner as the instant claims; therefore, it is the position of the examiner that the pH would also be within the same range as the instant claims. Since Freeman discloses the same composition, it is the position of the examiner that absent a showing to the contrary, the feed supplement of Freeman would possess the same functional limitations as the feed supplement of the instant claims.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have fed the gel of Freeman to animals, with the expectation of incorporating high lipid levels in animal feeds without incurring the processing difficulties normally associated with high lipid diets.

Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman (US Patent 4,808,429) in view of Cook et al. (US Patent 5,428,072).

The teachings of Freeman are discussed above and applied in the same manner.

Freeman does not disclose the use of conjugated linoleic acid.

Cook discloses a method of enhancing weight gain and feed efficiency in an animal by administering to the animal a safe and effective amount of conjugated linoleic acid (abstract). It is known that linoleic acid is found in seed oils.

It would have been obvious to a person of ordinary skill in the art to incorporate the teachings of Cook with the composition of Freeman, since Cook discloses that its desirable to enhance the efficiency of feed conversion and enhance body weight in an animal since conjugated linoleic acids are natural food ingredients and relatively non-toxic (column 1, lines 55-68).

Applicant is reminded that where the general conditions of the claims are met, burden is shifted to applicant to provide a patentable distinction. Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. See In re Aller, 220 F.2d 454 105 USPQ 233,235 (CCPA 1955).

Conclusion

Due to the new grounds of rejection presented in this office action, this action is made Non-Final. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MELISSA S. MERCIER whose telephone number is (571)272-9039. The examiner can normally be reached on 8:00am-4:30pm Mon through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on (571) 272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Melissa S Mercier/
Examiner, Art Unit 1615

/MP WOODWARD/
Supervisory Patent Examiner, Art Unit 1615